Wilbridge Cove
Multi-Applicant Dredging Proposals Meeting Summary

November 23, 2010
DEQ HQ Conf RM EQC-A at 811 SW 6th Ave, Portland OR
1:00 pm – 4:00 pm

Attendees:
James Holm, USACE PM for Chevron
Tom Taylor, USACE PM for Conoco-Phillips
Alex Liverman, DEQ
Larry Steckman, Norwest Engineering/Kinder-Morgan
Tim Ferguson, Norwest Engineering/Kinder-Morgan
Erin Hale, Amec for Conoco-Phillips
Tom Lyons, Conoco-Phillips
Chris Moody, Arcadis for Chevron
Grant Sprick, Arcadis for Chevron
Jerry Henderson, Chevron
Todd Cushner, Chevron
Kurt Liebe, Chevron
On the Phone:
Jonathan Freedman, EPA
Genevieve Angle, NMFS
Terry Lauck, Conoco-Phillips
Kurt Harrington, Amec for Conoco-Phillips

Regulatory cohesion discussion – DEQ, USACE & EPA revisited the MOU on Portland Harbor Superfund Site (PHSS) and came to resolution in June 2010 that all permit actions in PHSS could result in a discharge and therefore trigger DEQ 401 Water Quality Certification (WQC). Further, USACE and EPA have a MOU on meeting CERCLA in USACE permits. Coordination with EPA on PHSS permit actions is important because the Record of Decision is not yet complete, so target levels of potential contaminants and final remedies are not yet set. Additional data collected from these permit actions is useful for EPA's CERCLA process.

Looking at the 3 adjacent Willbridge dredging proposals together may allow the agencies a better approach to minimize impacts, better understand overlaps, and to realize workload efficiencies. Keeping with an individual permit approach is important for the applicants in maintaining flexibility for individual needs and timing, but understanding overlapping considerations may lead to improved project proposals and potential cost reductions or sharing.

Elements of each project:

	Conoco-Phillips	Chevron	Kinder-Morgan
Last Dredged	~15 years ago	2002 (~8 years ago)	~17 years ago
Desired timing	July 2012 or after	July 2011	July 2011
Projected Duration	~4.5 weeks	~3 weeks	~4.5 - 6 weeks
Contractor	Hickey Marine	Hickey Marine	Hickey Marine
Depth (with overdredge)	-32 upberth/-39 downberth	-40.5	-39.5
Area	~3.4 acres	~6.5 – 7 acres	~8.3 acres (?) from JPA
Volume	30,000 cy	20,000 cy	37,000 cy (JPA says 55,000)
Side/ toe slope	3:1/3:1 (outside shallow hab)	2:1/no toe (60-70 ft from toe)	3:1/3:1
Dredge method	20 yd cable arm bucket/bin barge	20 yd cable arm bucket/bin barge	20 yd cable arm bucket/bin barge
Containment	none	none	Rigid silt curtain structure
SEF results(prism/NSM)	not suitable/not suitable	Not suitable/suitable	DRET SAP in process
Disposal of sediment	barge to landfill	barge to landfill	barge to landfill
Disposal of water	Treat and to POTW	Treat and to POTW	contain on barge to landfill (or baker tank to POTW per MET results)
Leave surface management	6 in sand cap (to -38.5)	None (at -40.5)	1 ft sand cap (to -38.5)

The predicted natural accumulation varies with conditions, but averages about 0.5 feet per year. Kinder-Morgan is the farthest downstream, Chevron is in the middle, and Conoco-Phillips has a berth adjacent to Chevron and a second one

farther upstream. There is currently a relatively stable "berm" between Conoco-Phillips and Chevron berths, due to Chevron's historic dredging (currently deeper than both others). Conoco-Phillips' dredging will remove this berm and intends to leave a 3:1 slope over the ~ 2 foot difference in elevation between the adjacent berths. There is a "slope" between Kinder-Morgan to the Chevron berth and Kinder-Morgan's dredging intends to leave a 3:1 slope over the ~ 2 foot difference in elevation. It is unclear how much distance is between the proposed dredging at Kinder-Morgan and Chevron, but we assume it is minimal. Kinder-Morgan and Conoco-Phillips intend to dredge into the toe, but stay out of shallow water habitat. Chevron is avoiding the toe and leaving approximately 60-70 feet to the toe (at low water).

<u>Identification and discussion of potential issues, overlaps, options</u>:
Hickey is the contractor for all.

- Alignment of depths & slopes

We discussed the potential for Chevron, positioned in the middle and deeper, to be the recipient of material sloughing into their berth after Kinder-Morgan and Conoco-Phillips disturb the slope and berm adjacent with their dredging. Do we need more information regarding the width left between adjacent berths to achieve the 3:1 slope as a preventative for sloughing into the deepest, central berth (Chevron)?

We also discussed the potential for Kinder-Morgan and Conoco-Phillips to dredge an additional foot or so to match Chevron's -40. This would eliminate the sloughing potential and may relieve Conoco-Phillips and Kinder-Morgan from needing to cap. Despite cost savings from not having to cap, added costs of moving and disposing of more material need consideration and additional grab samples would be required at the new leave surface to confirm acceptable CoC levels. This may not require reinitiation of consultation with NMFS for Kinder-Morgan.

Conoco-Phillips asked about the possibility of dredging to a depth less than that proposed and analyzed. USACE & DEQ agreed that this would be outside of the project being evaluated. A modification would be possible, but additional data would be needed. We recommended proposing that as an option prior to permit issuance if it was a strong potential. We could also add conditions regarding additional data requirements that could be submitted after permitting for a modification.

- Shallow water habitat considerations

USACE discussed this being areas less than 20 feet. Chevron is avoiding shallow water habitat with an offset from the toe. Conoco-Phillips provided an analysis of how they are avoiding it. Kinder-Morgan's bathymetry appeared to have areas of 15 feet in the dredge prism at the toe. Does NMFS or USACE need more info on this point?

- Alignment of leave surface management

Currently, Chevron's suitable NSM determination doesn't require any management. Conoco-Phillips proposes a 6 in sand cap and Kinder-Morgan proposes a 1 foot sand cap. Additional dredging depth and grab samples could eliminate the need for capping. Natural attenuation with additional grab samples and follow-up monitoring is also an option. If proposals are not modified, we should probably have consistent requirements for caps. Given the deposition rate (~ 6 in/yr) a 6 in cap may be adequate.

- Shared containment

Didn't seem feasible or necessary due to multiple reasons (timing commitment, shared funding and allocation questions, scheduling for ship entry/departure, effectiveness…). Containment at Kinder-Morgan does seem doable and they will work on a proposal.

<u>Decision points, next steps, wrap up</u>:

Kinder-Morgan and Conoco-Phillips will discuss potential modifications worth considering from this discussion and get back to the agencies as to whether they will propose any. NMFS requested all final modified project information be submitted and DEQ seconded that. USACE, NMFS and DEQ should all be working on the same project description. Alex will distribute a summary of the meeting and the agencies can discuss with applicants and at our next PHSS coordination meeting.